Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Army

R-1 ITEM NOMENCLATURE

2040: Research, Development, Test & Evaluation, Army

APPROPRIATION/BUDGET ACTIVITY

PE 0603779A: Environmental Quality Technology - Dem/Val

**DATE:** February 2011

BA 4: Advanced Component Development & Prototypes (ACD&P)

| ,   | •       | • | ,               |                |                  |         |         |         |         |                     |            |
|---|---------|---|-----------------|----------------|------------------|---------|---------|---------|---------|---------------------|------------|
| COST (\$ in Millions)   | FY 2010 | FY 2011                                 | FY 2012<br>Base | FY 2012<br>OCO | FY 2012<br>Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To<br>Complete | Total Cost |
| Total Program Element   | 20.203  | 4.695                                   | 4.946           | -              | 4.946            | 5.108   | 4.786   | 4.683   | 4.684   | Continuing          | Continuing |
| 035: NATIONAL DEFENSE CNTR<br>FOR ENVIRO EXCELLENCE-<br>NDCEE | 8.573   | 4.695                                   | 4.520           | -              | 4.520            | 4.668   | 4.352   | 4.683   | 4.331   | Continuing          | Continuing |
| 04E: ENVIRONMENTAL<br>RESTORATION TECH<br>VALIDATION          | -       | -                                       | 0.426           | -              | 0.426            | 0.440   | 0.434   | -       | 0.353   | Continuing          | Continuing |
| E23: ENVIRONMENTAL<br>MANAGEMENT SYSTEM (EMS)<br>PILOT IN DOD | 1.989   | -                                       | -               | -              | -                | -       | -       | -       | -       | 0.000               | 1.989      |
| EP1: ENVIRONMENTAL QUALITY<br>TECH DEM/VAL (CA)               | 9.641   | -                                       | -               | -              | -                | -       | -       | -       | -       | 0.000               | 9.641      |

### Note

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## A. Mission Description and Budget Item Justification

There is a broad application potential for environmental quality technology (EQT) to be applied to multiple Army weapon systems and installations. However, technology must be demonstrated and validated (total ownership cost and performance data identified) before potential users will consider exploiting it. Therefore, this program element includes projects focused on validating the general military utility or cost reduction potential of technology when applied to different types of infrastructure, military equipment or techniques. It may include validations and proof-of-principle demonstrations in field exercises to evaluate upgrades or provide new operational capabilities. The validation of technologies will be in as realistic an operating environment as possible to assess performance or cost reduction potential. EQT demonstration/validation is systemic; i.e., applies to a class of systems (e.g., tanks or aircraft) or to a Department of Army-wide, multiple site/installation problem (e.g., unexploded ordnance detection and discrimination). This program will address, and eventually resource, programs in each of the environmental quality technology pillars (restoration, conservation, compliance, and pollution prevention). Work must be endorsed by potential users and supported by a state-of-the-art assessment (i.e., "technology is heading for user to implement").

Army Page 1 of 15 R-1 Line Item #65

Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Army

DATE: February 2011

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

2040: Research, Development, Test & Evaluation, Army

PE 0603779A: Environmental Quality Technology - Dem/Val

BA 4: Advanced Component Development & Prototypes (ACD&P)

| B. Program Change Summary (\$ in Millions)            | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total |
|---|---------|---------|--------------|-------------|---------------|
| Previous President's Budget                           | 18.374  | 4.695   | 4.770        | -           | 4.770         |
| Current President's Budget                            | 20.203  | 4.695   | 4.946        | -           | 4.946         |
| Total Adjustments                                     | 1.829   | _       | 0.176        | -           | 0.176         |
| <ul> <li>Congressional General Reductions</li> </ul>  |         | -       |              |             |               |
| <ul> <li>Congressional Directed Reductions</li> </ul> |         | -       |              |             |               |
| <ul> <li>Congressional Rescissions</li> </ul>         | -       | -       |              |             |               |
| <ul> <li>Congressional Adds</li> </ul>                |         | -       |              |             |               |
| <ul> <li>Congressional Directed Transfers</li> </ul>  |         | -       |              |             |               |
| <ul> <li>Reprogrammings</li> </ul>                    | 1.990   | -       |              |             |               |
| SBIR/STTR Transfer                                    | -0.161  | -       |              |             |               |
| <ul> <li>Adjustments to Budget Years</li> </ul>       | -       | -       | 0.176        | -           | 0.176         |

Page 2 of 15 R-1 Line Item #65

| Exhibit R-2A, RDT&E Project Justification: PB 2012 Army  |         |         |                 |   |       |       |       |  | DATE: February 2011 |                     |            |
|--|---------|---------|-----------------|---|-------|-------|-------|--|---------------------|---------------------|------------|
| APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 4: Advanced Component Development & Prototypes (ACD&P) |         |         |                 | , |       |       |       | DNAL DEFENSE CNTR FOR<br>XCELLENCE-NDCEE |                     |                     |            |
| COST (\$ in Millions)  | FY 2010 | FY 2011 | FY 2012<br>Base | FY 2012<br>OCO                          |       |       |       |  | FY 2016             | Cost To<br>Complete | Total Cost |
| 035: NATIONAL DEFENSE CNTR<br>FOR ENVIRO EXCELLENCE-<br>NDCEE  | 8.573   | 4.695   | 4.520           | -                                       | 4.520 | 4.668 | 4.352 | 4.683                                    | 4.331               | Continuing          | Continuing |
| Quantity of RDT&E Articles   |         |         |                 |   |       |       |       |  |                     |                     |            |

### A. Mission Description and Budget Item Justification

The National Defense Center for Energy and Environment(NDCEE) was established by Congress in 1990 with a directive to "serve as a national leadership organization to address high priority environmental problems for the Department of Defense (DoD), other government organizations, and the industrial community." The NDCEE Program is a national resource for developing and disseminating advanced environmental technologies. The NDCEE is used to demonstrate environmentally acceptable technology to industry; validate new technology prior to transferring that technology; and assist in the training of potential users as part of that technology transfer process. The NDCEE is a DoD resource for environmental quality management and technology validation. This program is managed by the Army on behalf of the Office of the Assistant Deputy Under Secretary of Defense for Environment (ADUSD-E). In May 2008, the program name was redesignated from the National Defense for Environmental Excellence to the National Defense Center for Energy and Environment to ensure that the Center's mission recognizes and addresses the strategic interdependence of energy and environmental technology requirements within an overall sustainability framework in support of our installations, weapons systems and war fighters. This name change also directly supports the DoD's proactive implementation of Executive Order 13423, "Strengthening Federal Environmental, Energy and Transportation Management."

Our broadly encompassing and growing mobile, personal and stationary advanced energy technology requirements include infrastructure, alternative and synthetic fuels, surety, renewables, storage, distribution, advanced power, micro-grids, transportation, systems integration and others. Further, to train as we fight, validated energy and environmental technologies need to be available, and implemented at our power projection bases and training areas. The NDCEE will continue to research, demonstrate and transfer these technologies supporting our integrated Environment, Safety and Occupational Health (ESOH) and energy objectives with full consideration of the triple bottom line of mission, environment and community.

| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)          | FY 2010 | FY 2011 | FY 2012 |
|---|---------|---------|---------|
| Title: Management and operations of the NDCEE by the prime contractor.                    | 3.283   | 1.325   | 1.300   |
| Articles:   | 0       | 0       |         |
| Description: Management and operations of the NDCEE by the prime contractor.              |         |         |         |
| FY 2010 Accomplishments:  Management and operations of the NDCEE by the prime contractor. |         |         |         |
| FY 2011 Plans:  |         |         |         |

Army Page 3 of 15 R-1 Line Item #65

| Exhibit R-2A, RDT&E Project Justification: PB 2012 Army  |   |                | DATE: Fe   | bruary 2011 |         |
|--|---|----------------|------------|-------------|---------|
| APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 4: Advanced Component Development & Prototypes (ACD&P) | ECT<br>IATIONAL DEFENSE CNTR FOR<br>RO EXCELLENCE-NDCEE |                |            |             |         |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Qu  | antities in Each)                                       |                | FY 2010    | FY 2011     | FY 2012 |
| Management and operations of the NDCEE by the prime contractor.  |   |                |            |             |         |
| FY 2012 Plans:  Management and operations of the NDCEE by the prime contractor.  |   |                |            |             |         |
| <i>Title:</i> Industrial base integration, operation of the NDCEE environme analysis.  | ntal technology facility, and environmental inforn      |                | 1.277<br>0 | 0.500<br>0  | 0.500   |
|  |   | Articles:      |            |             |         |
| <b>Description:</b> Industrial base integration, operation of the NDCEE enanalysis.  | vironmental technology facility, and environment        | al information |            |             |         |
| FY 2010 Accomplishments: Industrial base integration, operation of the NDCEE environmental te  | chnology facility, and environmental information        | analysis.      |            |             |         |
| FY 2011 Plans: Industrial base integration, operation of the NDCEE environmental te  | chnology facility, and environmental information        | analysis.      |            |             |         |
| FY 2012 Plans: Industrial base integration, operation of the NDCEE environmental te  | chnology facility, and environmental information        | analysis.      |            |             |         |
| <i>Title:</i> Conduct demonstration/validation of environmentally acceptable production, operating, and/or disposal costs.                   | e technologies that enhance military readiness a        |                | 3.385<br>0 | 2.603<br>0  | 2.48    |
|  |   | Articles:      |            |             |         |
| <b>Description:</b> Conduct demonstration/validation of environmentally acreduce production, operating, and/or disposal costs.               | cceptable technologies that enhance military rea        | diness and     |            |             |         |
| FY 2010 Accomplishments: Conduct demonstration/validation of environmentally acceptable tech production, operating, and/or disposal costs.   | nologies that enhance military readiness and re         | duce           |            |             |         |
| FY 2011 Plans:   |   |                |            |             |         |
| Conduct demonstration/validation of environmentally acceptable tech production, operating, and/or disposal costs.                            | nologies that enhance military readiness and red        | duce           |            |             |         |
| FY 2012 Plans:   |   |                |            |             |         |

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Army Page 4 of 15 R-1 Line Item #65

| Exhibit R-2A, RDT&E Project Justification: PB 2012 Army   | DATE: February 2011                |            |                      |
|---|------------------------------------|------------|----------------------|
| APPROPRIATION/BUDGET ACTIVITY                             | R-1 ITEM NOMENCLATURE              | PROJECT    |                      |
| 2040: Research, Development, Test & Evaluation, Army      | PE 0603779A: Environmental Quality | 035: NATIO | NAL DEFENSE CNTR FOR |
| BA 4: Advanced Component Development & Prototypes (ACD&P) | Technology - Dem/Val               | ENVIRO EX  | KCELLENCE-NDCEE      |

| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)  | FY 2010    | FY 2011    | FY 2012 |
|---|------------|------------|---------|
| Conduct demonstration/validation of environmentally acceptable technologies that enhance military readiness and reduce production, operating, and/or disposal costs.              |            |            |         |
| <b>Title:</b> NDCEE Government program management during contract negotiations and execution and during project formulation, execution, and technology transfer. <b>Articles:</b> | 0.628<br>0 | 0.267<br>0 | 0.235   |
| Articles.   |            |            |         |
| <b>Description:</b> NDCEE Government program management during contract negotiations and execution and during project formulation, execution, and technology transfer.            |            |            |         |
| FY 2010 Accomplishments:  NDCEE Government program management during contract negotiations and execution and during project formulation, execution, and technology transfer.      |            |            |         |
| FY 2011 Plans:  NDCEE Government program management during contract negotiations and execution and during project formulation, execution, and technology transfer.                |            |            |         |
| <b>FY 2012 Plans:</b> NDCEE Government program management during contract negotiations and execution and during project formulation, execution, and technology transfer.          |            |            |         |
| Accomplishments/Planned Programs Subtotals  | 8.573      | 4.695      | 4.520   |

## C. Other Program Funding Summary (\$ in Millions)

N/A

## **D. Acquisition Strategy**

The NDCEE is a national asset focused on DoD applications that include technology transfer to appropriate DoD organizations. The NDCEE fosters an outreach program to describe its products and capabilities that include publication of results and participation in professional meetings, symposia, conferences, and appropriate coordination with industry. The management strategy for the NDCEE centers on a DoD Executive Advisory Board (EAB) chaired by the DoD NDCEE Executive Agent on behalf of the ADUSD (ESOH) and composed of senior DoD leadership to oversee NDCEE operations. The EAB is supported by an EAB Working Group (EABWG) that includes staff members from each of the offices represented on the EAB. The EABWG coordinates all NDCEE activities and reports back to the EAB Principals. The EABWG is, in turn, supported by a Technical Working Group (TWG) that addresses the details of NDCEE program execution. The contracting strategy of the NDCEE is based on using an NDCEE Contracting Officer's Representative to validate all the contractual portions of the NDCEE and by technical monitors (TM) to oversee the technical aspects of each contracted task. A prime contractor operates NDCEE test facility(s) to validate environmentally compatible technologies on a

| Exhibit R-2A, RDT&E Project Justification: PB 2012 Army   |   | DATE: February 2011                            |
|---|---|--|
| APPROPRIATION/BUDGET ACTIVITY   | R-1 ITEM NOMENCLATURE                           | PROJECT  |
| 2040: Research, Development, Test & Evaluation, Army  | PE 0603779A: Environmental Quality              | 035: NATIONAL DEFENSE CNTR FOR                 |
| BA 4: Advanced Component Development & Prototypes (ACD&P)   | Technology - Dem/Val                            | ENVIRO EXCELLENCE-NDCEE                        |
| representative "shop floor". The NDCEE accounts for and conduct Government agencies; and (3) Congressionally directed and funde |   | nbursable tasks from within DoD and from other |
| E. Performance Metrics  |   |  |
| Performance metrics used in the preparation of this justification ma  | aterial may be found in the FY 2010 Army Perfor | mance Budget Justification Book, dated May 201 |
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Army Page 6 of 15 R-1 Line Item #65

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army DATE: February 2011 APPROPRIATION/BUDGET ACTIVITY **R-1 ITEM NOMENCLATURE PROJECT** 2040: Research, Development, Test & Evaluation, Army PE 0603779A: Environmental Quality 035: NATIONAL DEFENSE CNTR FOR BA 4: Advanced Component Development & Prototypes (ACD&P) ENVIRO EXCELLENCE-NDCEE Technology - Dem/Val FY 2012 FY 2012 FY 2012 Management Services (\$ in Millions) FY 2011 oco Base Total **Total Prior** Contract **Target** Method Performing Years Award Award Award Cost To Value of Cost Category Item & Type **Activity & Location** Cost Cost Date Cost Date Cost Date Cost Complete **Total Cost** Contract Office of the Assistant Sec Army **Program Management** Various (Installations and 4.738 0.880 0.508 0.508 Continuing Continuing Continuing Support Environment): Washington, DC Subtotal 4.738 0.880 0.508 0.508 FY 2012 FY 2012 FY 2012 **Product Development (\$ in Millions)** FY 2011 Base oco Total **Total Prior** Contract Target Method Performing Years Award Award Award Cost To Value of **Cost Category Item** & Type **Activity & Location** Cost Cost Date Cost Date Cost Date Cost Complete **Total Cost** Contract To Be Determined:To To Be Determined TBD 5.028 1.200 Continuing Continuina Continuina Be Determined Subtotal 5.028 1.200 FY 2012 FY 2012 FY 2012 Support (\$ in Millions) FY 2011 Base oco Total **Total Prior** Contract **Target** Method Performing Years Award Award Award **Cost To** Value of **Total Cost Cost Category Item** & Type **Activity & Location** Cost Cost Date Cost Date Cost Date Cost Complete Contract Concurrent Technologies **Technical Data** Various 16.440 1.120 1.709 Continuing Continuing Continuing 1.709 Corporation (CTC):Johnstown, PA Subtotal 16.440 1.120 1.709 1.709 FY 2012 FY 2012 FY 2012 Test and Evaluation (\$ in Millions) FY 2011 Base oco Total Contract **Total Prior Target** Method Performing Years Award Award Award Cost To Value of Complete **Cost Category Item** & Type **Activity & Location** Cost Cost Date Cost Date Cost Date Cost **Total Cost** Contract Concurrent **Development Testing** Various Technologies 2.466 Continuing Continuina Continuina Corp.:Johnstown, PA

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Page 7 of 15 R-1 Line Item #65

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 4: Advanced Component Development & Prototypes (ACD&P)

R-1 ITEM NOMENCLATURE

PE 0603779A: Environmental Quality

Technology - Dem/Val

PROJECT

**DATE:** February 2011

035: NATIONAL DEFENSE CNTR FOR ENVIRO EXCELLENCE-NDCEE

| Test and Evaluation (\$            | in Millions                  | 5)  |                              | FY 2  | 2011          | FY 2<br>Ba |               |            | 2012<br>CO       | FY 2012<br>Total |                     |                                |                                |
|------------------------------------|------------------------------|---|------------------------------|-------|---------------|------------|---------------|------------|------------------|------------------|---------------------|--------------------------------|--------------------------------|
| Cost Category Item                 | Contract<br>Method<br>& Type | Performing<br>Activity & Location                 | Total Prior<br>Years<br>Cost | Cost  | Award<br>Date | Cost       | Award<br>Date | Cost       | Award<br>Date    | Cost             | Cost To<br>Complete | Total Cost                     | Target<br>Value of<br>Contract |
| Development Testing and Evaluation | Various                      | Concurrent<br>Technologies<br>Corp.:Johnstown, PA | 18.327                       | 1.495 |               | 2.303      |               | -          |                  | 2.303            | Continuing          | Continuing                     | Continuing                     |
|                                    |                              | Subtotal  | 20.793                       | 1.495 |               | 2.303      |               | -          |                  | 2.303            |                     |                                |                                |
| Total Pric<br>Years<br>Cost        |                              |   | FY 2                         | 2011  | FY 2<br>Ba    |            |               | 2012<br>CO | FY 2012<br>Total | Cost To          | Total Cost          | Target<br>Value of<br>Contract |                                |
|                                    |                              | Project Cost Totals                               | 46.999                       | 4.695 |               | 4.520      |               | -          |                  | 4.520            |                     |                                |                                |

#### Remarks

Army

**UNCLASSIFIED** 

Page 8 of 15 R-1 Line Item #65

DATE: February 2011

|  | ROPRIATION/BUDGET ACTIVITY  E Research, Development, Test & Evaluation, Army E Advanced Component Development & Prototypes (ACD&P)  Technology - Development & Prototypes (ACD&P) |         |                 |                | 9A: Environn     |         |         |         |         |                     | TION       |
|--|---|---------|-----------------|----------------|------------------|---------|---------|---------|---------|---------------------|------------|
| COST (\$ in Millions)                                | FY 2010   | FY 2011 | FY 2012<br>Base | FY 2012<br>OCO | FY 2012<br>Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To<br>Complete | Total Cost |
| 04E: ENVIRONMENTAL<br>RESTORATION TECH<br>VALIDATION | -   | -       | 0.426           | -              | 0.426            | 0.440   | 0.434   | -       | 0.353   | Continuing          | Continuing |
| Quantity of RDT&E Articles                           |   |         |                 |                |                  |         |         |         |         |                     |            |

## A. Mission Description and Budget Item Justification

Exhibit R-2A, RDT&E Project Justification: PB 2012 Army

Environmental Information Technology Management (EITM) includes support for Knowledge Based Corporate Reporting system (KBCRS) and Defense Environmental Network Information Exchange (DENIX). This new request for research, development, test and evaluation (RDTE) is to enhance KBCRS to a net-centric all services transactional system of record and reporting tool set. Also includes EITM upgrades to incorporate new security and other requirements.

| B. Accomplishments/Planned Programs (\$ in Millions)   | FY 2010 | FY 2011 | FY 2012 |
|--|---------|---------|---------|
| Title: Restoration Tech Validation   | _       | -       | 0.426   |
| Description: Funding is provided for the following effort  |         |         |         |
| FY 2012 Plans: To provide system upgrades to support users with reporting requirements, for example the Annual Report to Congress. |         |         |         |
| Accomplishments/Planned Programs Subtotals   | -       | -       | 0.426   |

## C. Other Program Funding Summary (\$ in Millions)

N/A

## D. Acquisition Strategy

The U.S. Army's Environmental Quality Technology (EQT) program provides new or innovative methods, equipment, materials, and/or protocols to reduce the total cost of Army operations and/or allow training operations to continue with minimum adverse impact on the environment that result from base operations and weapons system maintenance/support activities. The restoration demonstration/validation portion of EQT is designed to support Army-wide stewardship of its lands and facilities by focusing on the transfer of potential technological solutions to restoration problems on Army installations and to industry to support restoration of Army lands to their former or redesignated use. The restoration EQT demonstration/validation program goal is to support installation needs through exploitation of technology without compromising readiness or training. It accomplishes this goal in two steps. First, Technology Teams identify, prioritize, and justify technological solutions to Army high-priority environmental quality technology restoration requirements. Second, based on Department of the Army and Office of the Secretary of Defense guidance, funding authority is sought through the Army's planning, programming, and budgeting process. The EQT management oversight process consists of an Environmental Technology Technical Council (ETTC; a program management council), an Environmental Technology Integrated Process Team, (a working group supporting the ETTC) and, in this case, a Restoration Technology Team (composed of experts in restoration technology and in Army user needs).

Army Page 9 of 15 R-1 Line Item #65

| Exhibit R-2A, RDT&E Project Justification: PB 2012 Army   | DATE: February 2011                            |  |
|---|--|--|
| APPROPRIATION/BUDGET ACTIVITY   | R-1 ITEM NOMENCLATURE                          | PROJECT  |
| 2040: Research, Development, Test & Evaluation, Army  | PE 0603779A: Environmental Quality             | 04E: ENVIRONMENTAL RESTORATION                   |
| BA 4: Advanced Component Development & Prototypes (ACD&P)   | Technology - Dem/Val                           | TECH VALIDATION                                  |
| This program is leveraging resources and knowledge gained from the Security Technology Certification Program (ESTCP) and the Nation |  |  |
| E. Performance Metrics  |  |  |
| Performance metrics used in the preparation of this justification mat   | terial may be found in the FY 2010 Army Perfor | mance Budget Justification Book, dated May 2010. |
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Army Page 10 of 15 R-1 Line Item #65

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 4: Advanced Component Development & Prototypes (ACD&P)

R-1 ITEM NOMENCLATURE

PE 0603779A: Environmental Quality

Technology - Dem/Val

от <sup>\_\_\_</sup>

**DATE:** February 2011

PROJECT

04E: ENVIRONMENTAL RESTORATION

TECH VALIDATION

| Test and Evaluation (\$ i   | n Millions                   | s)                                   |                              | FY:  | 2011          | FY 2<br>Ba |               |      | 2012<br>CO    | FY 2012<br>Total |                     |            |                                |
|---|------------------------------|--------------------------------------|------------------------------|------|---------------|------------|---------------|------|---------------|------------------|---------------------|------------|--------------------------------|
| Cost Category Item  | Contract<br>Method<br>& Type | Performing<br>Activity & Location    | Total Prior<br>Years<br>Cost | Cost | Award<br>Date | Cost       | Award<br>Date | Cost | Award<br>Date | Cost             | Cost To<br>Complete | Total Cost | Target<br>Value of<br>Contract |
| Enhance KBCRS to a<br>net-centric all services<br>transactional system of record<br>and reporting tool set. | TBD                          | To Be Determined:To<br>Be Determined | 5.100                        | -    |               | 0.426      |               | -    |               | 0.426            | Continuing          | Continuing | Continuing                     |
|   |                              | Subtotal                             | 5.100                        | -    |               | 0.426      |               | -    |               | 0.426            |                     |            |                                |
|   |                              |                                      | Total Prior<br>Years<br>Cost | FY:  | 2011          | FY 2<br>Ba |               |      | 2012<br>CO    | FY 2012<br>Total | Cost To             | Total Cost | Target<br>Value of<br>Contract |
|   |                              | Project Cost Totals                  | 5.100                        | -    |               | 0.426      |               | -    |               | 0.426            |                     |            |                                |

#### Remarks

**UNCLASSIFIED** 

Page 11 of 15 R-1 Line Item #65

| Exhibit R-2A, RDT&E Project Just                              | tification: PB | 2012 Army |                 |  |                  |                      |         |   | DATE: Feb | ruary 2011          |            |
|---|----------------|-----------|-----------------|--|------------------|----------------------|---------|---|-----------|---------------------|------------|
| 2040: Research, Development, Test & Evaluation, Army          |                |           |                 | R-1 ITEM N<br>PE 0603779<br>Technology | 9A: Environn     | TURE<br>nental Quali | 'y      | PROJECT E23: ENVIRONMENTAL MANAGEMENT SYSTEM (EMS) PILOT IN DOD |           |                     |            |
| COST (\$ in Millions)   | FY 2010        | FY 2011   | FY 2012<br>Base | FY 2012<br>OCO                         | FY 2012<br>Total | FY 2013              | FY 2014 | FY 2015   | FY 2016   | Cost To<br>Complete | Total Cost |
| E23: ENVIRONMENTAL<br>MANAGEMENT SYSTEM (EMS)<br>PILOT IN DOD | 1.989          | -         | -               | -                                      | -                | -                    | -       | -   | -         | 0.000               | 1.989      |
| Quantity of RDT&E Articles                                    |                |           |                 |  |                  |                      |         |   |           |                     |            |

## A. Mission Description and Budget Item Justification

The Environmental Management System (EMS) Pilot in Department of Defense (DOD) is a new Congressional interest project. The project is to demonstrate and validate EMS internet-based software applications at Defense sites in order to better manage environmental information and reduce compliance burdens of installations.

| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)   | FY 2010 | FY 2011 | FY 2012 |
|--|---------|---------|---------|
| Title: Demonstrated and validated EMS internet-based software applications at Department of Defense (DoD) installation sites.                    | 1.989   | -       | -       |
| Articles:  | 0       |         |         |
| <b>Description:</b> Demonstrated and validated EMS internet-based software applications at Department of Defense (DoD) installation sites.       |         |         |         |
| FY 2010 Accomplishments:  Demonstrated and validated EMS internet-based software applications at Department of Defense (DoD) installation sites. |         |         |         |
| Accomplishments/Planned Programs Subtotals   | 1.989   | -       | -       |

# C. Other Program Funding Summary (\$ in Millions)

N/A

## D. Acquisition Strategy

N/A

### E. Performance Metrics

Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.

Army Page 12 of 15 R-1 Line Item #65

DATE: Fabruson: 2011

| Exhibit R-2A, RD1&E Project Just                     | ification: PE | 3 2012 Army | <b>'</b>        |  |                  |                       |         |  | DAIE: Feb | ruary 2011          |            |
|--|---------------|-------------|-----------------|--|------------------|-----------------------|---------|--|-----------|---------------------|------------|
| 2040: Research, Development, Test & Evaluation, Army |               |             |                 | R-1 ITEM N<br>PE 0603779<br>Technology | 9A: Environn     | TURE<br>mental Qualit | 'y      | PROJECT EP1: ENVIRONMENTAL QUALITY TECH DEM/VAL (CA) |           |                     |            |
| COST (\$ in Millions)                                | FY 2010       | FY 2011     | FY 2012<br>Base | FY 2012<br>OCO                         | FY 2012<br>Total | FY 2013               | FY 2014 | FY 2015  | FY 2016   | Cost To<br>Complete | Total Cost |
| EP1: ENVIRONMENTAL QUALITY<br>TECH DEM/VAL (CA)      | 9.641         | -           | -               | -                                      | -                | -                     | -       | -  | -         | 0.000               | 9.641      |
| Quantity of RDT&E Articles                           |               |             |                 |  |                  |                       |         |  |           |                     |            |

### A. Mission Description and Budget Item Justification

Exhibit D 24 DDT9 F Drainet Instification, DD 2042 Array

Environmental Quality Technology Dem/Val Adds (CA) - Congressional directed Army Environmental quality technology projects that address critical requirements, reduce out-year costs, and support long-term sustainability. This includes compliance, conservation, restoration and installation pollution prevention technologies.

Congressional directed Environmental Quality Technology (EQT) projects for FY 2010 appropriation totaling \$13.7 million: Cadmium Emissions Reduction \$1.000 million; Vanadium Technology \$2.400 million; Environmental Management Information System (EMIS) \$2.000 million (should be in APE 643779E23), and Program increase for National Defense Center for Energy and Environment (NDCEE) \$7.500 million (should be in APE 643779035).

| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)   |           | FY 2010 | FY 2011 | FY 2012 |
|--|-----------|---------|---------|---------|
| Title: Renewable Energy Testing Center (RETC) - congressional interest project   |           | 0.800   | -       | _       |
|  | Articles: | 0       |         |         |
| Description: Funding is provided for the following effort  |           |         |         |         |
| FY 2010 Accomplishments:   |           |         |         |         |
| Renewable Energy Testing Center (RETC)-Provide metics on robustness, safety, energy efficiency and environmenatal effectiveness. |           |         |         |         |
| Title: Cadmium Emissions Reduction -Letterkenny Army Depot   |           | 1.000   | -       | -       |
|  | Articles: | 0       |         |         |
| Description: Funding is provided for the following effort  |           |         |         |         |
| FY 2010 Accomplishments:   |           |         |         |         |
| Cadmium Emissions Reduction -Letterkenny Army Depot - congressional interest project   |           |         |         |         |
| Title: Vanadium Technology Program - congressional interest project  |           | 2.400   | -       | -       |
|  | Articles: | 0       |         |         |
| Description: Funding is provided for the following effort  |           |         |         |         |
| FY 2010 Accomplishments:   |           |         |         |         |

| Exhibit R-2A, RDT&E Project Justification: PB 2012 Army   | DATE: February 2011                |            |                        |
|---|------------------------------------|------------|------------------------|
| APPROPRIATION/BUDGET ACTIVITY                             | R-1 ITEM NOMENCLATURE              | PROJECT    |                        |
| 2040: Research, Development, Test & Evaluation, Army      | PE 0603779A: Environmental Quality | EP1: ENVIR | RONMENTAL QUALITY TECH |
| BA 4: Advanced Component Development & Prototypes (ACD&P) | Technology - Dem/Val               | DEM/VAL (  | CA)                    |

| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)  | FY 2010 | FY 2011 | FY 2012 |
|---|---------|---------|---------|
| Vanadium Technology Program   |         |         |         |
| Title: National Defense Center for Energy and Environment(NDCEE)  | 3.141   | -       | -       |
| Articles:   | 0       |         |         |
| Description: Funding is provided for the following effort   |         |         |         |
| FY 2010 Accomplishments:  National Defense Center for Energy and Environment (NDCEE) - Program Increase (should be reported in APE 643779035) |         |         |         |
| Title: Environmental Management System (EMS) Pilot in DOD - congressional interest project  | 2.300   | -       | -       |
| Articles:   | 0       |         |         |
| Description: Funding is provided for the following effort   |         |         |         |
| FY 2010 Accomplishments:  |         |         |         |
| Environmental Management System (EMS) Pilot in DOD - congressional interest project (should be reported in APE 643779E23)                     |         |         |         |
| Accomplishments/Planned Programs Subtotals  | 9.641   | -       | -       |

# C. Other Program Funding Summary (\$ in Millions)

N/A

## D. Acquisition Strategy

Congressional interest projects

# **E. Performance Metrics**

Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.

Army Page 14 of 15 R-1 Line Item #65

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 4: Advanced Component Development & Prototypes (ACD&P)

R-1 ITEM NOMENCLATURE

PE 0603779A: Environmental Quality

Technology - Dem/Val

**DATE:** February 2011

PROJECT

EP1: ENVIRONMENTAL QUALITY TECH

DEM/VAL (CA)

| Test and Evaluation (\$  | in Millions                  | 5)   |                              | FY   | 2011          |      | 2012<br>ise   |      | 2012<br>CO    | FY 2012<br>Total |                     |            |                                |
|--|------------------------------|--|------------------------------|------|---------------|------|---------------|------|---------------|------------------|---------------------|------------|--------------------------------|
| Cost Category Item   | Contract<br>Method<br>& Type | Performing<br>Activity & Location                | Total Prior<br>Years<br>Cost | Cost | Award<br>Date | Cost | Award<br>Date | Cost | Award<br>Date | Cost             | Cost To<br>Complete | Total Cost | Target<br>Value of<br>Contract |
| Demonstration/Validation of Cadmium Emissions Reduction                                | Various                      | Mountain Research,<br>LLC:Altoona, PA            | 20.110                       | -    |               | -    |               | -    |               | -                | Continuing          | Continuing | 0.000                          |
| Demonstration/Validation of Vanadium Technology  | Various                      | ATI:Pittsburgh, PA                               | -                            | -    |               | -    |               | -    |               | -                | Continuing          | Continuing | 0.000                          |
| Demonstration/Validation of<br>Environmental Management<br>Information System project. | Various                      | Concurrent<br>Technologies<br>Corp:Johnstown, PA | -                            | -    |               | -    |               | -    |               | -                | Continuing          | Continuing | 0.000                          |
| Demonstration/Validation of<br>Renewable Energy Testing<br>Center                      | Various                      | Technikon,<br>LLC:McClellan Park,<br>CA          | -                            | -    |               | -    |               | -    |               | -                | Continuing          | Continuing | 0.000                          |
| Development Testing at the National Defense Center for Energy and Environment.         | Various                      | Concurrent<br>Technologies<br>Corp:Johnstown, PA | -                            | -    |               | -    |               | -    |               | -                | Continuing          | Continuing | 0.000                          |
|  |                              | Subtotal   | 20.110                       | -    |               | -    |               | -    |               | -                |                     |            | 0.000                          |
|  |                              |  | Total Prior<br>Years<br>Cost | FY:  | 2011          |      | 2012<br>ise   | FY 2 |               | FY 2012<br>Total | Cost To             | Total Cost | Target<br>Value of<br>Contract |
|  |                              | Project Cost Totals                              | 20.110                       | _    |               | -    |               | -    |               | _                |                     |            | 0.000                          |

Remarks

**UNCLASSIFIED** 

Page 15 of 15 R-1 Line Item #65